

Amendment to the Claims

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of claims

1. (Canceled)
2. (Previously presented) The method of claim 12, wherein the wireless data network is a CDMA2000 network.
3. (Currently amended) The method of claim 2, wherein determining that the previously established data connection is lost includes receiving a refusal of service message from the wireless data network.
4. (Previously presented) The method of claim 3, wherein the refusal of service message is one of a Retry Order, a Reorder Order and a Release Order.
5. (Currently amended) The method of claim 4, further including initializing initializing a back off timer on receipt of the refusal of service message.
6. (Previously presented) The method of claim 3, wherein the refusal of service message is an Intercept Message.
7. (Previously presented) The method of claim 5, wherein initializing the back off timer is based on a random seed.
8. (Currently amended) The method of claim 5, wherein the back off timer is initialized to a time greater than or equal to any back off timer time calculated after a last previously established data connection.

9. (Previously presented) The method of claim 5, wherein initializing the back off timer is based on a retry delay specified by a Retry Order.
10. (Original) The method of claim 9, wherein the back off timer is initialized to a time greater than or equal to the retry delay.
11. (Canceled)
12. (Currently amended) A method of automatically maintaining a data connection on a wireless data network, comprising:
 - determining, at minimum fixed time intervals determined by a service check timer, the status of a previously established data connection;
 - automatically transmitting a connection request if the previously established data connection is determined to be lost; and
 - re-establishing the previously established data connection if the transmitted connection request is accepted by the wireless data network.
13. (Currently amended) The method of claim 12, wherein the step of determining the ~~data connection status of the previously established data connection~~ is preceded by initializing the service check timer.
14. (Original) The method of claim 12, wherein the step of automatically transmitting the connection request is performed upon expiry of a back off timer.
15. (Previously presented) The method of claim 14, wherein the back off timer is initialized to a value based on a retry delay determined in response to a refusal of service message.

16. (Previously presented) The method of claim 12, wherein determining the status of the previously established data connection includes comparing assigned network resources to default values.
17. (Original) The method of claim 16, wherein the step of comparing includes determining that no data connection is established when an assigned Internet Protocol address is set to 0.0.0.0.
18. (Previously presented) The method of claim 4, including a step of forcing premature expiry of the service check timer upon receipt of a Release Order.
19. (Original) The method of claim 18, wherein the Release Order is a Point-to-Point-Protocol termination request.
20. (Previously presented) The method of claim 2, wherein the connection request is an Origination Message.
21. (Currently amended) A mobile device for establishing and maintaining a data connection to a wireless data network, the mobile device comprising:
 - a back off timer for timing a back off period between retries to establish [[a]] the data connection;
 - a service check timer for setting a minimum fixed interval after which [[an]] a previously established data connection is checked to determine if it has been lost; and
 - a connection manager for determining if [[a]] the previously established data connection between the mobile device and the wireless network exists or has been lost; for resetting the service check timer upon its expiry if the data connection exists; for transmitting connection requests to the wireless network upon initialization, upon expiry of the back off timer, and upon expiry of the service check timer if the previously established data connection has been lost; and for resetting the back off timer in response to receipt of a connection rejection from the wireless network.

22. (Original) The mobile device of claim 21, wherein the wireless data network is a CDMA2000 network.
23. (Previously presented) The mobile device of claim 22, wherein the connection manager includes means to reset the back off timer in response to the receipt of one of a Retry Order, a Reorder Order and a Release Order.
24. (Original) The mobile device of claim 21, wherein the connection manager includes an accumulator for tracking consecutive rejections of service, and means to reset the back off timer in accordance with the number of consecutive rejections.
25. (Previously presented) The mobile device of claim 23, wherein the connection manager includes means for causing premature expiry of the service check timer in response to the receipt of a Release Order.
26. (Previously presented) The mobile device of claim 23, wherein the means to reset the back off timer includes means to reset the back off timer such that the back off time is greater than, or equal to, a retry delay determined in response to a Retry Order or a Release Order.
27. (Currently amended) The method of claim 6, wherein the [[the]] connection request is automatically transmitted upon detection of a new wireless data network.